REMARKS

This amendment is file with an RCE of the present application and addresses issues raised in the Final Office Action mailed April 7, 2004 (paper #10).

The Examiner raised objections to claims 4 and 10 based upon reasons set forth on page 2 of the Final Office Action. In response, the claims are amended as suggested by the Examiner.

Several claims (identified below) have been rejected under 35 USC 112, first paragraph. Before addressing the rejection in detail applicants take the opportunity to summarize the law as applied to a rejection under 35 USC 112, first paragraph. Under this portion of the statute applicants are obliged to provide sufficient description to avoid undue experimentation. It is believed that this requirement is met and the portion of the specification that satisfies these requirements will now be identified.

In particular, claims 5-9 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner states: "a processing unit" in claim 4, and "a back pressure controller" in claim 7 are not supported by the original specification.

It should be noted that claim 4 does not contain "a processing unit". This appears to be a typographical error since "a processing unit" is found in claim 5 and the response is based upon its use in claim 5 and not in claim 4. Regarding a processing unit (claim 5) the Examiner's attention is directed to Figure 2, and page 14, lines 5-10, (applicants' specification) which show in block diagram form a processing system and a

plurality of processing units 110. Applicants contend that any one of this plurality of processing units can be used to meet the recitation in claim 5. Regarding "a back pressure controller" in claim 7 the attention of the Examiner is directed to page 17, line 15 through page 18, line 13 (applicants' specification). This teaching indicates that a threshold is associated with each of the output port queues and that threshold limits the flow of information from the WF queue calendar to a port queue. As stated at page 17, line 20 "the system provides a form of back pressure to limit the output preventing frames from being sent out that the system cannot handle". This teaching forms the basis for support for back pressure controller used in claim 7.

Claims 11-16 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner states: "Each position represents a predefined unit of bandwidth and associated with stored information including information pointers pointing to information sources" and "a controller responsive to signals from a first position whereat the current pointer is aligned to identify a second position whereat an information pointer is placed for future serving after being detected from the first position" are not supported by the original specification.

In response, claim 11 is amended as shown above. The new amended claim clearly has support in the specification. For example, the first element of claim 11 is shown in Figures 3 and 4 and described at page 17, lines 1-13 (applicants' specification). Regarding pointers pointing to information source applicants direct the attention of the Examiner to page 17, line 2 which reads: "each slot contains a LIFO stack of pointers to flow queues". In the claim information sources correspond to the flow queues. It should be noted that applicants' in drafting the claim need not use exact language which was used in the specification. At page 17, line 11 it is stated that the

current pointer is used to indicate the service location within the WFQ calendar. Then the description of the operation of the calendar together with the flowchart in Figure 5 clearly meets the element of the claim containing a controller responsive to . . . ". It is applicants' contention that the flowchart clearly sets forth a process which is executed on a machine which is referred to in the claim as a controller. That controller can be one of the processing units shown in Figure 1 and 2 of the present application. It is believed that a reading and understanding of the invention as set forth in the above page clearly satisfies the requirement of 35 USC 112, first paragraph, as applied to amended claim 11.

Claim 17 is rejected under 35 USC 112, first paragraph, as failing to comply with a written description requirement. In particular, the Examiner states: "calculating a distance based on queue wait assigned to the queue and number of bytes transmitted in newly submitted claim is not supported by the original specification". In response, claim 17 does not contain the calculating language. Instead, the language is in claim 18. As a consequence the discussion relates to claim 18 and not 17. Applicants direct the attention of the Examiner to page 19, line 15 through page 20, line 20 (applicants' specification). There a discussion of WFQ queue distant calculation is given. In addition, applicants direct the attention of the Examiner to page 16, lines 15-23 (applicants' specification). The teachings of the cited pages clearly support the distance calculation as set forth in claim 18.

Claims 4, 10 and 17 are rejected under 35 USC 102(b) as being anticipated by Hughes et al. (U.S. Patent 5,835,494).

The law as applied to a rejection of anticipation requires that each recitation in the claim is explicitly shown or inherent in a single cited reference. It is applicants'

contention that under that standard the claims are not anticipated by Hughes. With respect to claims 4 and 10 Hughes does not teach at least one time-independent calendar having pointers identifying queues containing information unit to be transmitted are being stored and/or a current pointer . . . advancing at predefined time interval to select a slot whereat a queue being identified by one of said pointers is selected and an information unit is transmitted from the queue to an output destination.

Instead, Hughes teaches pointers in high granular calendar 112 and low granular calendar 112 pointing to head and tail of lists in next connection table 116. The relationship between the pointers in Figure 2 are described at column 6, lines 30-67 of Hughes reference. It is clear from this relationship that the teaching in Hughes is different from that in applicants' claims 4 and 10. Likewise, claim 17 is not anticipated by Hughes in that it recites each location adapted to store pointers identifying queues with information units ready for transmission. As discussed above this element is not shown in Hughes. The pointers in Hughes do not point to queues as is recited in the claim. As a consequence claim 17 is not anticipated. In view of the above claims 4, 10 and 17 are not anticipated by the Hughes reference.

Claims 2-3 are rejected under 35 USC 103(a) as being unpatentable over Wallmeier (U.S. Patent 6,031,822) in view of Ohba (U.S. Patent 6,101,193).

In response, applicants argue Wallmeier (U.S. Patent 6,031,822) teaches away from applicants' invention. Therefore, an artisan viewing the teachings in the reference would not arrive at the method that renders claims 2 and 3 obvious. In particular, claim 2, element 2, requires calendars being time-based and another one of the calendars being time-independent. These are different type calendars which are not taught by Wallmeier (U.S. Patent 6,031,822). In contrast, Wallmeier teaches a single type

calendar shown in Figure 4 and column 5, lines 11-19 refer to it as a calendar mechanism that is employed in the rate shaping RS method (details set forth in columns 5 and 6 of the patent). On column 7, lines 38-65 the reference, in part, states: "the calendar mechanism of the rate shaping method is likewise executed in the scheduler block means SB0 . . . SB127". This is a clear teaching that a single calendar type is used in Wallmeier whereas in the claimed invention two different types of calendars are used, i.e. time-based and time-independent. Because Wallmeier teaches a single type of calendar it is applicants' contention that the reference teaches away from applicants' invention.

Applicants also contend that if one of the cited references teaches away from the claimed invention then the combination could not render the claim obvious. In addition, applicants argue that even after the combination the resulting reference would not render applicants' claim obvious. This is so because one of the requirements in applicants' claim (i.e. time-based and time-independent calendar) would be absent from the Examiner's combination. Absent this element the combination would not suggest or render applicants' invention obvious.

Furthermore, applicants argue that the Examiner's combination is improper in that the two references cited by the Examiner are referring to different aspects of scheduling. In the Wallmeier reference a single type calendar is used. In the Ohba et al. reference the scheduling is done through queues. The use of queues for scheduling is different from the use of calendar. Hence, an artisan viewing the two references which addresses different type of scheduling --absent hindsight gleaned from applicants' disclosure-- would not form a combination which would render applicants' claim obvious. Stated another way the teaching in Ohba could not be combined with the teaching in Wallmeier because there is no motivation to use scheduling method

associated with queues to scheduling method using calendar. In view of the above the Examiner has not met his burden of making out a prima facie case of obviousness. Therefore, claims 2 and 3 are not obvious in view of the references.

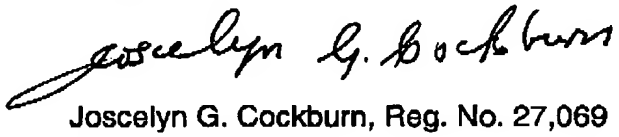
With respect to the Examiner's argument applicants respectfully traverse by pointing out the Examiner's reliance on teaching in Wallmeier at column 4, line 59 to column 5, line 10 to satisfy the recitation in applicants' claim, i.e. one of the calendars being time-based and another one of the calendars being time-independent appears to be in error. It is applicants' contention that the teaching in Wallmeier (U.S. Patent 6,031,822) at column 4, lines 59 through column 5, line 10 is too broad and general to support the Examiner's conclusion that it does teach "placing each information unit ready for transmission into one of several prioritized calendars based on the priority information associated with each processing unit, one of the calendars being time-based and another one of the calendars being time-independent". It appears as if the teaching in Wallmeier is only referring to real time ATM cell which has to be treated on a priority basis.

Furthermore, applicants argue that the construction of invention described in a patent should not be antithetical to the clear or plain teachings of the reference. As set forth above the reference clearly teaches that the single type of calendar is used to do RS shaping and are also used in the scheduler means SB0 . . . SB27. Moreover, any construction of a reference that is antithetical or different from the clear teaching of the reference is improper and should be rejected.

Newly added claim 19 is patentable over the art of record for reasons set forth above.

It is believed that this amendment answers all the issues raised in the final rejection. Reconsideration is request and an early allowance of all the claims is solicited.

Respectfully Submitted,



Joscelyn G. Cockburn, Reg. No. 27,069
Attorney of Record
IBM Corporation
IP Law Dept. 9CCA/B002
P.O. Box 12195
Research Triangle Park, NC 27709

JGC:ko
919-543-9036
FAX 919-254-2649